REMARKS

Status of Claims:

Claims 57, 58, and 68-80 were examined in the outstanding Office Action. No claims are being added or canceled by this Reply. Therefore, claims 57, 58, and 68-80 will be pending upon entry of this Reply.

Office Action References:

Applicant expressly reserves the right to respond to any rejection in the outstanding Office Action by filing an appropriate affidavit under 37 C.F.R. §1.131 in any subsequent Response, where appropriate. Therefore, any addressing of the deficiencies of any reference herein is not an admission as to the prior art status of any such reference. Moreover, any failure to address the Examiner's interpretation with regard to any reference is not an admission by Applicant that the Examiner's position is in fact accurate. Finally, Applicant's response should not be construed as an admission as to the appropriateness of any combinations being asserted by the Examiner in support of any obviousness rejection.

§112 Rejections:

The Examiner has rejected claims 57, 58, and 68-80 under 35 U.S.C. §112, first paragraph, based upon the recitation of the term "programmed" in relation to both the purge protocol and the injection procedure. Applicant has deleted the term "programmed" from the independent claims 57 and 71. However, Applicant notes that Figure 10 is described on page 21, line 11 of the original application as "a flow chart for injector auto purge routine 140 for a dual head injector." Page 21, line 12 of the original specification then notes that "[f]or example, auto purge routine 140 may be used with dual head injector 60 shown in Figure 8," which does indeed utilize a hand-held head 60b. Therefore, it is clearly contemplated that the auto purge routine 140 is applicable to other dual head injectors. However, a purge protocol is also discussed specifically for the dual head injector 80 of Figure 8 of the original application, and which does include a hand-held head 60b with a syringe 108 (e.g., page 20, line 22 through page 21, line 5).

Independent Claim 57:

Independent Claim 57 stands rejected under 35 U.S.C. §103(a) based upon U.S. Patent No. 6,471,674 (hereafter "Emig") in view of Medrad, Inc., "Stellant CT Injection System, Operation Manual Catalog #SOM 700 EN, 2003 (hereafter "Stellant OMC"). Applicant respectfully requests reconsideration since a collective consideration of Emig and the Stellant OMC does not suggest the combination of features required by claim 57 to one of ordinary skill in the art.

Part of the combination of features of claim 57 requires executing a purging operation and thereafter an injection procedure, where Y-tubing is coupled to each of first and second syringes for the execution of each of the purging operation and the injection procedure, where the injection procedure is executed after the execution of the purging operation, and where the purging operation includes: 1) advancing a first plunger drive ram of the injector to move a plunger of the first syringe to a first predetermined stop point where the plunger of the first syringe stops, which purges air from the first syringe and a first section of Y-tubing, which furthermore fills the first section of the Y-tubing with contrast media from the first syringe, and where this advancement purges air up to where the first section of Y-tubing intersects with second and third sections of the Y-tubing; and 2) advancing a second plunger drive ram of the injector to move a plunger of the second syringe to a second predetermined stop point where the plunger of the second syringe stops, which purges air from the second syringe, the second section of the Y-tubing, the intersection of the first, second, and third section of the Y-tubing, and the third section of the Y-tubing, which furthermore fills the second and third sections of the Y-tubing with saline from the second syringe, and where the advancement of the second plunger drive ram for the purging operation occurs after the advancement of the first plunger drive ram for the purging operation.

The Examiner asserts that Emig discloses the sequence in which the first and second syringe plunger drivers are moved in accordance with claim 57 for purposes of the purging operation. Such is not the case. Claim 57 requires that the portion of the purging operation involving the contrast media syringe occurs before that portion of the purging operation involving the saline syringe. Column 6, lines 6-12 of Emig first addresses a priming operation involving saline from syringe 500. Thereafter, column 6, lines 12-14 of Emig addresses a priming operation involving contrast from syringe 300. Claim 57 provides detail on the sequence used for the purging operation. The portion of the purging operation involving the contrast media syringe entails advancing a first plunger drive ram of the injector to move a plunger of the first syringe (contrast media) to a first predetermined stop point where the plunger of the first syringe stops, which purges air from the first syringe and a first section of Y-tubing, which furthermore fills the first section of the Y-tubing with contrast media from the first syringe, and where this advancement purges air up to where the first section of Y-tubing intersects with second and third sections of the Y-tubing. The portion of the purging operation involving the saline syringe entails advancing a second plunger drive ram of the injector to move a plunger of the second syringe to a second predetermined stop point where the plunger of the second syringe stops, which purges air from the second syringe, the second section of the Y-tubing, the intersection of the first, second, and third section of the Y-tubing, and the third section of the Y-tubing, and which furthermore fills the second and third sections of the Y-tubing with saline from the second syringe. Again in relation to the purging operation of claim 57, the advancement of the first plunger drive ram (contrast media) occurs before the advancement of the second plunger drive ram (saline syringe).

The Stellant OMC does not remedy the above-noted deficiencies of Emig in relation to claim 57. In a prior rejection of claim 57 based solely on the Stellant OMC, the Examiner referred primarily to two different sections of

the Stellant OMC. The section on page 3-30 of the Stellant OMC does indeed mention "Ensure all air is purged," but does not provide any details as to how this is done. No specifics are provided on what plunger drive ram movement or combination of plunger drive ram movements are utilized to provide any purging operation in this section of the Stellant OMC.

The Examiner also previously referenced pages 3-34 through 3-36 of the Stellant OMC in relation to a previous rejection of claim 57. This section lists steps 1-14 in relation to an Auto Load function to load a syringe. Step 9 from this listing of steps (page 3-36) does indicate that a "Prime" button may be pressed, and that the injector may automatically move forward to fill the patient tubing with fluid. This of course is not a disclosure of the "advancing a first plunger drive ram" step and the "advancing a second plunger drive ram" step required by the purge protocol of claim 57 – two different movements of two different plunger drive rams in a certain time sequence. In fact, the very next sentence of step 9 indicates that "on a dual syringe system, the unit can be configured to either prime the tubing with contrast (side A) or saline (side B)" (emphasis added). This sentence clearly conveys that the priming operation of step 9 entails moving the plunger of a single syringe – either the syringe on the side A of the injector or the syringe on the side B of the injector. Claim 57 specifies that each of the first and second plunger drives rams is moved in the execution of the purging operation. Moreover, the timing of these movements is addressed by claim 57, along with how both saline and contrast media are introduced into the Y-tubing, as well as the extent of the air purge that is provided by each of these movements. Nothing of this type is addressed by the Stellant OMC.

Based upon the foregoing, claim 57 is allowable over a collective consideration of Emig and the Stellant OMC. Claims 58, 69, and 70, which depend from claim 57, are thereby also allowable over Emig and the Stellant OMC for at least the above-noted reasons. There is therefore no need to separately address the patentability of each of these claims and/or the Examiner's interpretation in relation to any of these claims or any of the references of record in relation thereto.

Independent Claim 71:

The Examiner did not make a prior art rejection of claim 71. As Applicant believes that claim 71 complies with 35 U.S.C §112, claim 71 should be in condition for allowance. However, Applicant notes that the timing of the advancements of the first and second plunger drive rams in claim 71 is the same as set forth in claim 57, as are the fluids associated with the advancement of the first and second plunger drive rams (contrast media and saline, respectively). That is, that portion of the purging operation involving the contrast media syringe occurs before that portion of the purging operation involving the saline syringe in the case of claim 71. Neither Emig nor the Stellant OMC disclose this sequence and as discussed above in relation to claim 57.

Conclusion:

Based upon the foregoing, Applicant believes that all pending claims are in condition for allowance and such a disposition is respectfully requested. In the event that a telephone conversation would further prosecution and/or expedite allowance, the Examiner is invited to contact the undersigned.

Respectfully submitted,

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